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CORNELIA WEBER[1]

Humboldt Univesity of Berlin,
Germany

University collections as custodians of oral heritage – some examples from Germany

Introduction

In September 1900, on the occasion of a Thai theatre troupe's performance in Berlin, Carl Stumpf, Chair and Head of the Psychological Institute of the Friedrich Wilhelms University, Berlin (known today as the Humboldt University), started to record music using an Edison phonograph. This was the birth of the *Berlin Phonogramm-Archiv*, which shortly after became a formal institution. Carl Stumpf used the „recordings in order to transcribe the music – described as 'foreign' or 'exotic' – in European musical notation and to investigate the tuning of the instruments"[2]. The recording of international musical cultures on the basis of new sources laid the foundation of a new scientific discipline in Berlin: comparative musicology or ethnomusicology[3]. „Soon after the founding of the archive, the collection of sound documents of traditional music was carried out so intensively and consistently that, within the space of a few years, Berlin had become an important centre of Comparative Musicology"[4]. The archive, initially used as the basis for the research of the psychologist Professor Stumpf, is today part of the Ethnological Museum in Berlin-Dahlem[5], where it continues to be explored. Since 1999, the *Phonogramm-Archiv* has been listed in the

[1] Cornelia Weber is general manager, researcher and lecturer at the Helmholtz-Zentrum für Kulturtechnik, Humboldt University of Berlin. Address: Unter den Linden 6, 10099 Berlin, Germany. E-mail: weber@mathematik.hu-berlin.de

[2] A. Simon, *The Musical Traditions of Mankind in the Berlin Phonogramm-Archiv 1900–2000. Collecting, Preserving, Researching and Communicating* [in:] *Das Berliner Phonogramm-Archiv 1900–2000. Sammlungen der traditionellen Musik der Welt – The Berlin Phonogramm-Archiv 1900–2000. Collections of Traditional Music of the World*, ed. by Artur Simon, Berlin 2000, p. 47–64, 49.

[3] See Simon (n. 1 above), p. 48–49.

[4] A. Simon, *Introduction* [in:] *Das Berliner Phonogramm-Archiv 1900–2000* (n. 1 above), p. 13.

[5] *Ethnologisches Museum* in Dahlem (former *Museum für Völkerkunde*), *Staatliche Museen zu Berlin, Preußischer Kulturbesitz.*

UNESCO „Memory of the World Register" for world cultural heritage of particular significance.

Technical requirements

The invention of the phonograph by Thomas A. Edison in 1877 and the gramophone by Emile Berliner in 1887 meant that, for the first time, acoustic collections could be established. The conservation and reproduction of sound opened up new opportunities for research: sounds could now be recorded and listened to, analyzed and compared with each other. Language, music, the voices of famous people, and animal noises were recorded for scientific use, or simply in order to save them for future generations[6].

Members of research expeditions used cylinder phonographs all over the world. „The Edison phonograph could be easily transported; did not need electrical power and was simple for everyone to use. Its great advantage was that material could be recorded or reproduced with little effort"[7]. Members of research expeditions took sound recording equipment with them and brought back the used wax cylinders. In this way, many ethnologists, linguists und other scientists, as well as doctors, missionaries, and interested colonial officials were able to contribute to the growth of the collections[8].

Gramophone recordings with flat discs were much more complicated, as a full technical team was required to make them; usually, the recording studios of record companies were used for this purpose[9]. Unlike phonograph recordings, those made on a gramophone could normally not be immediately played at the time and place of recording.

Today, thanks to special play-back systems for various kinds of cylinders or discs and digital technology, it is possible to save these unique documents from the beginnings of sound recording in another medium and to make them available to a much larger audience: „Over the years, the digital DAT tape [Digital Audio Tape] proved to be the standard preservation medium for the archived recordings. (...) The conversion to DAT tape is made without sound filtration (...) Avoiding further sound quality corrections still allows the possibility to make optimized sound copies at a later time for diverse purposes (publication, transcription of music and/or language)"[10]. In the future, the „Digital Audio Tape" medium will be replaced by „Hard Disc Recording".

Today data compression is commonplace. For the storage of historical sound documents it is however necessary that the original condition be preserved as much as possible.

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[6] S. Ziegler, *Die akustischen Sammlungen. Historische Tondokumente im Phonogramm-Archiv und im Lautarchiv* [in:] *Theater der Natur und Kunst/Theatrum naturae et artis. Wunderkammern des Wissens.* Katalog, Essays, Dokumentation, ed. by Horst Bredekamp, Jochen Brüning, Cornelia Weber, Berlin 2000–2001, Essays, p. 197–206, p. 197.

[7] Ziegler (n. 5 above), p. 198, translated from German.

[8] Simon, *Musical Traditions* (n. 1 above), p. 50.

[9] Ziegler (n. 5 above), p. 198.

[10] Albrecht Wiedmann, *A Few Technical Remarks on the Digital Conservation of the Old Inventory of the Berlin Phonogramm-Archiv* [in:] *Das Berliner Phonogramm-Archiv 1900–2000* (n. 1 above), p. 203–208, p. 205.

The archiving of recorded material must be carried out with great care[11]. Sound recording media are extremely sensitive: every single detail of the signal is read as information, and so even a small scratch on a CD can lead to loss of data. Compared to earlier formats, the greater data density of modern media means that they are very sensitive. Even general wear of the data media can cause changes and distortion of the recorded signals. The old cylinders can only be played ten to twelve times in total, after which the signal is lost. Discs are also at risk from wear. To ensure that such sound documents remain accessible for future use, it is necessary to make copies first.

A further problem is future availability. In order to play the historical recording medium, the corresponding equipment is necessary. Therefore it is important that enough play-back equipment is also archived.

Sound Archives at German Universities

The decision to present sound archives to the UMAC 2004 conference launched me on a great adventure, since at that time I had very little information on the subject[12]. My research on this topic has led to the discovery of further archives, with the result that today I am able to present a total of seven historical audio collections. As far as I know, this is the first general attempt to obtain information on sound archives at German universities.

What follows does not aim to be an exhaustive description. Rather, its goal is to survey the general features of sound archives in German universities, highlighting in particular their role in the history of different disciplines. The main focus will be on the specific character of these collections and their importance as research sources, both past and present.

Sound Archive of the Humboldt University, Berlin

In 1914, the teacher Wilhelm Doegen proposed to the Prussian Ministry of Culture that a „Museum of Sound" be created[13]. His dream was to „capture the voices, languages and the music of all the peoples of the world on gramophone recordings"[14]. One year later, the Royal Prussian Phonographic Commission was given the task of „systematically recording using scientific techniques, the languages, the music, and the sounds of the prisoners of all nationalities currently detained in German prisoner-of-

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[11] Further information: Uwe Hollmach, Mareile Kluge, Beate Wendt, *Die Phonetische Sammlung* [in:] *Aktuelle Facetten der Sprechwissenschaft. Bericht über das Ehrenkolloquium zum 65. Geburtstag von Eberhard Stock*, ed. by Lutz-Christian Anders, Angela Biege, Ines Bose and Christian Kessler. Frankfurt a. M. [...] 2002, p. 87–97.

[12] Further information: *UMAC Worldwide Database of University Museums & Collections* – http://publicus.culture.hu-berlin.de/collections/

[13] W. Doegen, *Einleitung* [in:] *Unter fremden Völkern. Eine neue Völkerkunde*, ed. by Wilhelm Doegen, Berlin 1925, p. 9.

[14] Doegen (n. 12 above), p. 9, translated from German.

-war-camps, and also to record the corresponding texts"[15]. Famous scientists, including linguists, musicologists, and anthropologists, took part in this secret activity.
Further documents were added to the collection of recordings: protocols, personal records, texts in their original language, phonetic transcriptions, translations, and photographs[16]. The personal records contained detailed information on the persons being recorded, for example: surname, first name, address, date of birth, place of birth, education, place of education, place of residence, profession, father's profession, origin (language area) of father and mother, knowledge of foreign languages, written literacy and reading skills, and religion.

The shellac record collection moved from the now defunct sound department of the Phonographic Commission to the University of Berlin in 1934. It became part of the Institute for Sound Research, and a teaching and research section for phonetics was specially created for this purpose. During the Second World War, further music and recordings of languages were made of prisoners-of-war.

After the war, the *Sound Archive* moved, literally, around the University: from the Institute of Comparative Phonetics to the Rehabilitation Education and Communication Studies department, and then to the Institute of Musicology. From 1997 onwards, the collections of the *Sound Archive*, thanks to financial support from the Volkswagen Foundation, have been systematically digitized and catalogued. Today, the collection contains diverse written documents (personal records and further documentation, inventory books, correspondence) and around 4,500 original shellac records, two-thirds of which are recordings of languages, and one-third are recordings of traditional music from 1915 to 1944. Furthermore, there are 3,000 duplicates. The recordings include German dialects, foreign languages, animal sounds, voices of famous people, recordings of songs and instrumental music[17]. The sound documents, in particular, are of great importance for musicologists, linguists, experts in phonetics, students of German, and historians; this is partly due to the unique documentation of the recordings.

The recording of the sound archive's acoustic documents in a database and the transformation onto a digital recording medium is in full swing. Upon its completion the scientific analysis will take place. Furthermore, the publication of critically commented editions is planned, so that the recordings can also be made available to a broader circle of users.

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[15] Doegen (n. 12 above), p. 10, translated from German.

[16] Ziegler (n. 5 above), p. 201.

[17] Further information: J.-K. Mahrenholz, *The „Lautarchiv" of the Humboldt University of Berlin and the Presentation of Collections in the IMAGO Database* [in:] *Proceedings of the XIV Conference of the ICTM-Study Group on Historical Sources of Traditional Music*, ed. by Susanne Ziegler, Ralf Martin Jäger (in print); sound examples: http://publicus.culture.hu-berlin.de/lautarchiv/ (26.10.04).

Deutscher Sprachatlas at the Research Institute for German Language of the Philipps University of Marburg

The *Research Institute for German Language* in Marburg is concerned primarily with the investigation of German regional languages[18]. The archived materials include handwritten and printed texts, maps, graphic and sound documents, plus private and institutional bequests dating back to the second half of the 19th century. Among other things, over 100,000 dialect questionnaires from more than 50,000 German-speaking localities are archived. The sound archive encompasses around 3,500 recordings of German dialects on various media[19].

The Marburg Institute began as an effort to count the number of German dialects by Georg Wenker in 1876: „Georg Wenker's *Lingustic Atlas of the German Empire* (data collected between 1876 and 1887) is the first and to date most extensive linguistic atlas in existence. Featuring data from approximately 50,000 locations, it represents the only total survey and cartographic depiction of the dialects of a language"[20].

Wencker's questionnaires contained short „folk" sentences to be translated into the local dialect, for example: „Your dog ate up our meat". These so called „Wenker sentences" have earned a place in the history of German dialectology.

A digital archive, which will incorporate the most important material, including the sound recordings, is being assembled and can already be viewed on the Internet[21]: „For the first time, the evolution of spoken forms within one language over more than a century will become available for systematic analysis"[22].

Phonetic Collection of the Martin Luther University of Halle-Wittenberg

The sound archive of the *Phonetic Collection* of the Institute for speech science in Halle was founded in 1910 by the contemporary expert for phonetics and dialect researcher, Otto Bremer (1862–1936). The stock covers around 10,000 recordings of which 2,500 are shellac and wax records, 110 cylinders and around 200 sound foils. The spoken recordings cover „the artistic word, conversation and speech excerpts, as well as acoustic documents from phonetic research, or from the field of voice and speech therapy"[23]. The collection is complemented by experimental phonetic equipment, including important technical developments in sound recordings and sound measurement. Bremer used the collection for research and teaching[24].

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[18] Further information: J. Herrgen; A. Lenz, M. Pennay, *The Research Institute for German Language – „Deutscher Sprachtlas" (Marburg)* [in:] *Dialectologia et Geolinguistica,* 11, 2003, p. 94–109; http://www.uni-marburg.de/dsa/ (16.09.04).

[19] Information from Alfred Lameli, Marburg.

[20] http://www.diwa.info/ (26.10.04), see „Project Description".

[21] http://www.diwa.info/

[22] http://www.diwa.info/, see „Project Description".

[23] See Hollmach, Kluge, Wendt (n. 10 above), p. 87, translated from German.

[24] See R.-T. Speler, *Wahre Fundgruben. Sammlungen, Bibliotheken, Archive. Die akademischen Sammlungen und Museen* [in:] *Emporium. 500 Jahre Universität Halle-Wittenberg. Landesausstellung*

The acoustic material of the sound archive is currently being archived. At the same time, a database is being created that will make the search for specific recordings easier and so facilitate scientific evaluation.

The Display Collection of the Institute of Phonetic at the University of Hamburg

The collection of the Phonetic Institute at the University of Hamburg documents the history of the first institute for experimental phonetics in Germany[25]. The *Phonetic Laboratory* was founded in 1910. Experimental phonetics worked with the methods of natural science and its instruments stem from physiology, medicine, optics and acoustics. Much of this equipment was modified for phonetics requirements, while other apparatus was specially built, and can be seen in the display collection of the Phonetic Institute. The collection also houses a number of wax cylinders with recordings from the German colonial period[26].

Because the Institute for Phonetics does no longer exist, it is unclear who will be responsible for the collection in the future. Many universities in Germany are being forced to carry out restructuring and cuts at the moment, placing collections that are not part of current research in great danger.

Audio Visual Archive of the Catholic University Eichstätt-Ingolstadt

The *Audio Visual Archive* of the Catholic University Eichstätt-Ingolstadt is in possession of a collection of records „which documents the development history of the gramophone record from the hard rubber disc of Emile Berliner to the compact disc of today representative and almost without breaks"[27]. A catalogue published by the *Berliner Gramophone Company* of Philadelphia in 1900 gives us an idea of this achievement: „Day by day and step by step advance has been made, each new series of records showing some marked superiority. The Gramophone Record of today preserves the natural timbre and individuality of every voice [...] and brings the tones of the singer or speaker to you in all their natural purity [...] A perfectly natural and brilliant tone recorded on flat discs of a hard, indestructible composition used only for Gramophone records. These discs may be used by young children without fear of breakage or injury in any way"[28].

Sachsen-Anhalt 2002, ed. by Gunnar Berg et. al., Halle 2002, p. 379–413, p. 383. Further information: http://www.sprechwiss.uni-halle.de/sammlung/index.htm (26.10.04).

[25] See W. Grieger, *Führer durch die Schausammlung Phonetisches Institut.* Hamburg 1898.

[26] K. Mauersberger, Dresden, pers. comm. 2004.

[27] *Die historischen Tonträger der Universitätsbibliothek Eichstätt. Beschrieben von Christian Büchele, Helga König, Cordula Schütz.* Tutzing 1999 (Kataloge der Universitätsbibliothek Eichstätt 10) p. IX, translated from German.

[28] *A complete catalogue of Gramophone Records for the Berliner Gramophone.* Philadelphia [um 1900], p. 1. This Gramophone Company was founded by Emile Berliner („Deutsche Grammophon Gesellschaft").

The University library owns 1050 records from around 1890 to around 1955. The base holdings of the collection are made up of 291 shellac records from the period of acoustic recordings[29] before 1925. These records are from the estate of the Professor of Mathematics and Physics, Franz von Sales Romstöck (1844–1925), who gave gramophone concerts on several occasions. Thirty-one records from this estate come from the early period of record production, around 1890 to 1893. These are indeed rarities[30]. Through targeted purchases and diverse donations, the initial holdings of records has been systematically built up so that today there is an impressive collection.

The collection for the large part is made up of recordings of voice and instrumental music from the field of classical music, besides which there is popular music, some records of speech, radio plays and recordings of birdsongs.

Hoerburger Archive at the University of Regensburg

The *Hoerburger Archive* at the University of Regensburg accommodates materials on folk song, folk dance and folk music research[31]. The largest part of the collection comes from the estate of Felix Hoerburger, a folk dance researcher and music ethnologist who died in 1997[32], including remaining collections from the former State Institute for German Music Research (STIDMF) Department II (Folk Music) that was founded in 1935 in Berlin[33]. Its goal was the systematic collection and investigation of folk music, folk songs and folk dances from German-speaking and other European countries. The investigations concentrated on music, its creation and presentation.

Some of the material from the STIDMF was taken to Franconia during the Second World War and in this way came to the University of Regensburg and to Felix Hoerburger. He listened to all of the recording tapes and prepared a catalogue[34]. Additionally, he had copies made of the tapes. In order to make a digital recording and to save the material securely, however, the tapes would have to be played again.

The older sound material is partly unworked, as the necessary equipment for these documents is not available „in order to play the recorded music without any loss of the original sound"[35]. This kind of recording media encompasses a total of 123 wax cylinders and 395 galvanos (copper negatives of wax cylinders).

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[29] See W. Wimmer, *Zur Geschichte der Schellackplatte bis 1925* [in:] Ch. Büchele, *Die Schellackplattensammlung der Universitätsbibliothek Eichstätt. Bestandskatalog bis 1925*, Tutzing 1986 (Schriften der Universitätsbibliothek Eichstätt 8), p. XIII–XVII, XIII.

[30] *Die historischen Tonträger* (n. 26 above), p. XIV.

[31] For further information see Bettina Rocchor, *Das Hoerburger Archiv an der Universität Regensburg*, http://www.roccor.de/einleitung/aufsH.htm (26.10.2004).

[32] See W.A. Mayer, *Zum Gedenken an Felix Hoerburger (1916–1997)* [in:] *Bayerisches Jahrbuch für Volkskunde*, 1997, p. 159–162.

[33] See Th. Nußbaumer, *Alfred Quellmalz und seine Südtiroler Feldforschungen (1949–1942). Eine Studie zur musikalischen Volkskunde unter dem Nationalsozialismus*. Innsbruck, Wien, München 2001 (Bibliotheca Musicologica VI).

[34] F. Hoerburger, *Katalog der europäischen Volksmusik im Schallarchiv des Instituts für Musikforschung Regensburg*. Für die Unesco zusammengestellt und herausgegeben durch das Institut für Musikforschung Regensburg. Regensburg 1953 (Serie C: Ethnographische und Volksmusik 3; Quellen und Forschungen zur musikalischen Folklore 1).

[35] Rocchor (n. 30 above).

In addition to the acoustic material, the archive also contains many written documents. The preserved correspondence between the STIDMF and researchers, folk music collectors, musicians and cultural-political institutions during the Third Reich is of great importance for the history of science.

Archive of Animal Sounds at the Humboldt-University of Berlin

The *Archive of Animals Sounds* at the Museum of Natural History in Berlin is one of the oldest and largest of its kind worldwide. It now consists of about 110,000 records of animal voices concerning nearly all groups of animals including 1,800 species of birds, 580 species of mammals, more than 159 species of arthropods, some fish, amphibian and reptilian species. It also contains a large collection of human voices[36]. The archive was created by Günter Tembrock as part of his zoological research at Humboldt University. He intended to study the behaviour of animals without relying only on observation. The first sound recordings for the collection were made on tape in 1951. „In the sounds of animals, a behavioural parameter has been found that acoustic analysis can describe objectively"[37]. Tembrock's research ultimately led to the establishment of behavioural research in the former German Democratic Republic and the creation of bio-communication as an independent field of study. Today, modern acoustic analysis enables an exact comparison of the sounds made by animals and provides important information about animal communication. Furthermore, these investigations into acoustic communication have inspired insights regarding the evolution of human language.

The work of the sound archive has always been a part of the education of university students in biology[38] and is used frequently by scientists. However, it also provides material for museums and zoos, for exhibitions and guided tours, or for behavioural tests.

Presently, a great deal of work is being carried out on the digitalization of the sound documents and on the creation of an electronic database.

Concluding Remarks

This short survey of the audio collections in German universities gives insight into the broad spectrum currently available, and at the same time shows the significant cultural and scientific importance of these institutions.

The sound archives store a diverse range of materials from different periods of recording: wax cylinders, records, cassettes, digital media, documentation and equipment. Above all, sounds, including language, music, and animal sounds, have been

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[36] K.-H. Frommolt, *The Archive of Animal Sounds at the Humboldt-University of Berlin* [in:] *Bioacoustics, The International Journal of Animal Sound and its Recording*, 1996, Vol. 6, p. 293–296, 294.

[37] K.-H. Frommolt, *Das Archiv der Tierstimmen – Bioakustik im Dienst zoologischer Forschung* [in:] *Theater der Natur und Kunst* (n. 5 above), Katalog, p. 274, translated from German.

[38] Frommolt (n. 35 above), p. 294.

saved. Some of the recordings are priceless: for example, languages that have since died out, German dialects which are no longer spoken because of historical developments, and non-written traditional music, which otherwise would all have been lost forever.

For the most part the collections are closely connected to certain disciplines, for example in Berlin the collection is used for education in comparative musicology, ethnomusicology or bio-communication; in Halle it forms the basis for research in phonetics, in Marburg for linguistics; and in Hamburg for experimental phonetics. Typically, sound archives are used for research, but in specific cases also for teaching. Some of the collections have come to their universities in an almost accidental way and gained a place in university research at a later date. The sound archives depend on the importance of the sound documents for current research and the university respectively. If they are not included in current research, the acoustic collections are in danger of vanishing due to restructuring and cost-saving measures.

In order to ensure the existence of the sound archives it is important that the recording media be securely preserved, since the material is often at risk of decay. Seen from this angle, the complication that old recording media cannot just be played and copied has to be taken into consideration. In recent years, this has led to many new projects and developments[39].

The possibility of digitalization allows these treasures to be used in an unlimited way today. This has led to a real renaissance of the sound archives. Collections that were under-utilized for years, are now being systematically digitized and scientifically studied. The future probably lies in digital archives that can be accessed openly over the Internet.

Even if sound archives are only a very small part of a university's collections, their importance to research, teaching, and as historical and cultural testimony should not be underestimated.

Acknowledgements

I would like to thank Thilo Habel (Berlin), Alfred Lameli (Marburg), Jürgen Mahrenholz (Berlin), and Klaus Mauersberger (Dresden) for their valuable information.

[39] For the recording of cylinders, H. Chamoux developed the „Archaeophone", a universal phonograph cylinder player for archives. See: http://members01.chello.se/christer.hamp/phono/chamoux.html (26. 10.04); S. Ziegler, *The Wax Cylinder Project in Rescue of the Largest Collection of Old Sound Documents of Traditional Music from Around the World. Wax Cylinders and Shellac Records of the Berlin Phonogramm-Archiv* [in:] *Das Berliner Phonogramm-Archiv 1900–2000* (n. 1 above), p. 189–202.

STRESZCZENIE

Zbiory uniwersyteckie jako strażnicy przekazu ustnego – przykłady z Niemiec

Obecnie światowa baza danych muzeów i zbiorów uniwersyteckich UMAC (*UMAC Worldwide Database of University Museums & Collections*) zawiera informacje o siedmiu kolekcjach przechowujących historycznie ważne nośniki dźwięków w Niemczech: *Archiwum Dźwięku* przy Uniwersytecie Humboldta w Berlinie; *Niemiecki Atlas Językowy* przy Instytucie Badań Języka Niemieckiego na Uniwersytecie Philippsa w Marburgu; *Kolekcję Fonetyczną* Uniwersytetu Marcina Lutra w Halle-Wittenberdze; kolekcja wystaw *Instytutu Fonetyki* przy Uniwersytecie w Hamburgu; *Archiwum Audiowizualne* Uniwersytetu Katolickiego w Eichstätt-Ingolstadt; *Archiwum Hoerburgera* przy Uniwersytecie w Regensburgu oraz *Archiwum Dźwięków Zwierzęcych* przy Uniwersytecie Humboldta w Berlinie. W przeszłości owe jednostki odgrywały ważną rolę w tworzeniu określonych dyscyplin akademickich, szczególnie w obszarach fonetyki, muzykologii, etnologii i zoologii. Niniejsza praca opisuje archiwa dźwięków jako świadectwa historyczne i kulturowe, opierając się na relacjach między zbiorami i ich odpowiednimi dyscyplinami. Podkreśla się specjalny charakter tych zbiorów oraz ich znaczenie jako źródeł badawczych w przeszłości i obecnie.